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EXAMINER

NATNAEL, PAULO S M

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,958

Applicant(s)

HARRIS ET AL.

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification on page 5, line 21 through page 6, line 3, discloses, "With reference to FIG. 3, a representative diagram of a television screen (100) is shown. According to the NTSC SMPTE specification, there are a total of 525 video lines available for use. However, only 480 of those lines (102) are actually used for visible video. The remaining lines (104) are either unused or reserved for such things as closed captioning, picture control, etc. These lines are typically not viewed on a television set due to the extension of the frame of the television box over these unused lines. Different formats, such as PAL used in Europe, similarly have unused or reserved video lines of unused bandwidth. The present invention utilizes these unused lines or bandwidth to its advantage in order to associate and deliver data content which might otherwise be incompatible, or unrelated to the video signal transmission. The invention does this in a

Art Unit: 2614

manner which renders the associated and inserted data invisible or transparent to existing broadcast systems and equipment so that an end user desiring to extract the inserted data content need only have a decoder.”

The specification as originally filed does not disclose “encoding a video source signal by inserting data in unused video bandwidth, other than the vertical or horizontal blank [sic] interval, of the video source signal,” as is now variously recited in claims 1, 13, 17. These newly added negative limitations are considered new matter. If applicant contends that it is not new matter, specific location in the specification, i.e., page and line number etc. should be pointed out.

3. Nevertheless, the examiner has considered the newly added limitation in the rejection as shown below. And, this Office Action is made final.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, 8-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Myhrvold et al., U.S. Pat. No. 5,708,476.

Art Unit: 2614

a) encoding a video source signal by inserting data in unused video bandwidth, other than the vertical or horizontal blank interval, of the video source signal, is met by the transmitter portion 102, fig.4, where the data signal is inserted into an unused portion of the video signal spectrum. (see Abstract)

b) transmitting the encoded video source signal, is met by the transmitter 120, fig.4;

c) decoding the encoded video source signal, is met by the decoding apparatus 126, Fig.4;

Except for;

d) visually displaying the data or audibly delivering the data to an end user;

Regarding d), Myhrvold et al disclose a system and method for inserting and recovering a data signal for transmission with a video signal. (see Title) Myhrvold et al. teach that "the data signal is inserted into an unused portion of the video signal spectrum." (see Abstract) Myhrvold do not specifically disclose a display device or a device such as a speaker that would audibly deliver the data to an end user. However, Myhrvold et al. disclose that "The data signal 104 may be an analog signal or a digital data signal, such as would be useful for the transmission of digital music, database information, computer subscriber data, or the like. The subsequent processing of the data signal 104 in the receiver portion 126 depends on the particular form of the data signal (i.e., analog or digital), and the particular application for which the data signal is

Art Unit: 2614

intended (e.g., digital music)." (col. 6, lines 12-20) Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the apparatus of Myhrvold by providing a monitor/display device, or a set of speakers in order to deliver the data signal 104 which may comprise digital music, so that the desired data information can be viewed on screen or reproduced by the speakers for the enjoyment of the user.

Considering claim 2, the process of claim 1, wherein the encoding step includes the step of digitizing an analog data signal, is met by the disclosure that "The data signal 104 may be an analog signal or a digital data signal..." (col. 6, lines 12-13) which clearly means digitizing an analog input data is, impliedly, carried out by the system as necessary.

Considering claim 3, the process of claim 2, wherein the analog data signal comprises an audio signal, is also met by the disclosure that "The data signal 104 may be an analog signal or a digital data signal, such as would be useful for the transmission of *digital music*, database information, computer subscriber data, or the like. The subsequent processing of the data signal 104 in the receiver portion 126 depends on the particular form of the data signal (i.e., analog or digital), and the particular application for which the data signal is intended (*e.g., digital music*)." (col. 6, lines 12-20) [emphasis added]

Art Unit: 2614

Considering claim 5, the process of claim 2, including the step of compressing the digitized data.

As to claim 5, Myhrvold et al do not specifically disclose compressing the digitized data. However, Myhrvold et al. disclose that in order to avoid interference, "it is necessary to reduce the bandwidth of the additional information signal." And it's well known in the art, reduction of bandwidth may be performed by compressing the signal using well known compression techniques. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to utilize a compression technique such as the MPEG compression standard, so that a lot less bandwidth would be used in signal transmission, hence, making the system more efficient and less costly.

Considering claim 8, the process of claim 1, wherein the decoding step includes the step of separating the inserted data from the video source signal, is met by the signal separator 130, fig.4;

Considering claim 9, the process of claim 8, wherein the decoding step includes the step of decompressing the inserted data, is implied because a compressed signal (see rejection of claim 5) must be decompressed in the receiver to be useful.

Considering claim 10, the process of claim 8, wherein the decoding step includes the step of converting the data from a digital format into an analog signal, is implied

Art Unit: 2614

because in order to be viewed on a monitor or heard through a speaker a digital signal must to be converted utilizing the well known Digital to Analog (D/A) converter device.

6. Claims **4,11,12,17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Myhrvold et al.**, U.S. Pat. No. **5,708,476** in view of **Yuen et al.**, U.S. Pat. No. **6,452,640**.

Considering claim 4, the process of claim 3, wherein the audio signal comprises an audio narrative description of visual media associated with the video source signal;

Regarding claim 4, Myhrvold et al. disclose that "The data signal 104 may be an analog signal or a digital data signal, such as would be useful for the transmission of digital music, database information, computer subscriber data, or the like. The subsequent processing of the data signal 104 in the receiver portion 126 depends on the particular form of the data signal (i.e., analog or digital), and the particular application for which the data signal is intended (e.g., digital music)." (col. 6, lines 12-20) Yuen discloses a sound bite augmentation system wherein audio description of a television program is reproduced simultaneously with the display of the program at a television receiver. (see abstract) Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the apparatus of Myhrvold by providing the sound bite augmentation system of Yuen (claimed as audio narrative description) in order to enable the audio to be selected as a narrative or audio

Art Unit: 2614

description of the video program with an icon, so that the viewer would have the choice of conveniently selecting between a standard audio or the audio description of the video program, rendering the system of Myhrvold et al more versatile.

Considering claim 11, the process of claim 10, wherein the analog signal comprises an audio signal that is delivered to audio speakers;

Regarding claim 11, See rejection of claims 1(d) and 3.

Considering claim 12, the process of claim 10, wherein the analog signal comprises an audio narrative description of visual media associated with the video source signal.

Regarding claim 12, see rejection of claim 4.

Considering claim 17, a process for associating and delivering data with video, comprising the steps of:

a) encoding a video source signal with data...by inserting the audio narrative description data into unused video lines of the video source signal other than the vertical or horizontal blank interval, is met by the transmitter portion 102, fig.4, where the data signal is inserted into an unused portion of the video signal spectrum. (see Abstract)

b) transmitting the encoded video source signal, is met by Transmitter 120, fig.4;

Except for;

Art Unit: 2614

a1) ...comprising an audio narrative description of visual media associated with the video source signal...

c) decoding the encoded video source signal to separate the inserted audio narrative description data from the video source signal;

d) delivering the audio narrative description data to an audio speaker.

Regarding a1), see rejection of claim 4;

Regarding c), see decoding apparatus of 126 and rejection of claim 4.

Regarding (d), Myhrvold et al disclose a system and method for inserting and recovering a data signal for transmission with a video signal. (see Title) Myhrvold et al. teach that "the data signal is inserted into an unused portion of the video signal spectrum." (see Abstract) Myhrvold do not specifically disclose a display device or a device such as a speaker that would audibly deliver the data to an end user. However, Myhrvold et al. disclose that "The data signal 104 may be an analog signal or a digital data signal, such as would be useful for the transmission of digital music, database information, computer subscriber data, or the like. The subsequent processing of the data signal 104 in the receiver portion 126 depends on the particular form of the data signal (i.e., analog or digital), and the particular application for which the data signal is intended (e.g., digital music)." (col. 6, lines 12-20) It would have been, therefore, obvious to the skilled in the art at the time the invention was made to modify the apparatus of Myhrvold by providing a monitor/display device, or a set of speakers in order to deliver the data signal 104 which may comprise digital music, so that the

Art Unit: 2614

desired data information can be viewed on screen or reproduced by the speakers for the enjoyment of the user.

Considering claim 18, the process of claim 17, wherein the encoding step includes the step of digitizing an analog data signal, is implied because Myhrvold discloses that "The data signal 104 may be an analog signal or a digital data signal..." (col. 6, lines 12-13) which clearly means digitizing an analog input data is, impliedly, carried out by the system as necessary.

Considering claim 19, the process of claim 18, including the step of compressing the digitized audio narrative description data.

Regarding audio narrative description data, see rejection of claim 17 (a) and (c) above. As for the claimed decompressing the digitized audio narrative description data, it is implied because a compressed signal (see rejection of claim 5) must be decompressed in the receiver to be useful.

Response to Arguments

7. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PAULOS M. NATNAEL
PATENT EXAMINER

PMN

January 14, 2005